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EXAMINER	
LETT, THOMAS J	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/943,917	ABEL ET AL.	
	Examiner	Art Unit	
	Thomas J. Lett	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03 January 2006 have been fully considered but they are not persuasive. Applicant amends claims 1 and 21 to reflect the use of a plurality of printers in a materials and cost estimation system. Examiner, based on the latest amendment, changes the previous USC Sect 102 rejection with a USC Sect 103 rejection by combining an invention using the same inventor. Farrell et al (6,266,493 B1) explicitly states that Farrell et al (USPN 5,383,129) is relevant to the '493 patent. Examiner also notes that the invention of Sevcik et al (USPN 6,330,542 B1) is applicable to the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 29-32 and 34-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Farrell et al (USPN 6,266,493 B1).

With respect to claim 29, Farrell et al disclose a method for estimating consumables requirements for a print job, comprising:

providing printer parameters indicative of resources of a predetermined printer including an available amount of consumables (database 24 includes records 50 that contain data useful to estimate consumables required, col. 4, lines 5-17);

originating the print job at a first computer at a first network node (print job may be initiated from any of user interface 12 or printing systems 2, col. 2, lines 26-32. Examiner notes that each element in a system is a network node.);

communicating the print job to a second computer at a second network node (Examiner notes the printers 2 in the system 1 of Farrell et al send data to the Estimator 10. Farrell discloses that Estimator 10 may be located at printing systems 2 as well as user interface 12, col. 2, lines 37-39. All of these locations are different nodes. Thus the Estimator 10 can send the data to a second node.);

at the second computer (printing system 2, containing Estimator 10, col. 2, lines 37-39), analyzing the print job to determine print job parameters that affect a required amount of the consumables (col. 4, lines 49-61);

based on the print job parameters, estimating at the second computer the required amount of the consumables required to print the print job (col. 4, lines 49-52);

based on the printer parameters and the required amount of the consumables, making a determination at the second computer whether sufficient consumables exist to print the print job (col. 4, lines 49-52); and

communicating the determination from the second computer to the first computer (operator is notified, col. 6, lines 11-16).

With respect to claim 30, Farrell et al disclose a method of claim 29, wherein the printer parameters are indicative of an ink type, and an ink cartridge or ink reservoir type installed in the predetermined printer (step 55, col. 5, lines 55-56 and col. 6, lines 30-34).

With respect to claim 31, Farrell et al disclose a method of claim 30, wherein the printer parameters are further indicative of a printhead temperature of the predetermined printer.

With respect to claim 32, Farrell et al disclose a method of claim 31, wherein the printhead temperature affects ink usage, the estimating including adjusting the required amount of the consumables based on the printhead temperature (col. 6, lines 30-34).

With respect to claim 34, Farrell et al disclose a method of claim 29, wherein the print job parameters are indicative of an ink type, a print media type, a number of pages to be printed, and a print quality (col. 4, lines 30-34).

35. (New) The method of claim 29, comprising:

sending the print job from the first computer to the predetermined printer (Examiner notes the printers 2 in the system 1 of Farrell et al send data to the Estimator 10. Farrell discloses that Estimator 10 may be located at printing systems 2 as well as user interface 12, col. 2, lines 37-39. All of these locations are different nodes. Thus, Estimator 10 can send the data to a second node.).

36. (New) The method of claim 29, comprising:

identifying at the second computer at least one altemative printer having sufficient consumables to print the print job, and communicating the identity of the at

least one alternative printer to the first computer (Examiner notes the printers 2 in the system 1 of Farrell et al send data to the Estimator 10. Farrell discloses that Estimator 10 may be located at printing systems 2 as well as user interface 12, col. 2, lines 37-39. All of these locations are different nodes. Thus, Estimator 10 can send data to an alternative node.).

With respect to claim 37, Farrell et al disclose a method of claim 36, comprising:

at the first computer, selecting one of the alternative printers and sending the print job from the first computer to the alternative printer (Examiner notes the printers 2 in the system 1 of Farrell et al send data to the Estimator 10. Farrell discloses that Estimator 10 may be located at printing systems 2 as well as user interface 12, col. 2, lines 37-39. All of these locations are different nodes. Thus, Estimator 10 can send the data to a second node.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 6-9, 21, 22, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell et al (USPN 5,383,129) in view of Farrell et al (USPN 6,266,493 B1).

With respect to claim 1, Farrell discloses a method for estimating ink usage of a print job, comprising:

connecting a computer peripheral device (printer section 8, col. 6, lines 49-53) to a host computer (user interface 52, col. 6, lines 21-28) having predefined information relating to the peripheral device (system operation information, col. 6, line 26); and

offering pricing and estimation of ink and image consumables for completing the print job, before the print job is performed (cost of consumable materials for printing or rendering is input to the system to be used for estimation purposes, col. 8, lines 14-17).

Farrell et al ('129) does not expressly disclose using a plurality of different printers including the computer peripheral device.

Farrell et al ('493) teach of the use of several (*four are shown in Fig. 2*) printing systems 2 (col. 2, line 40, and see Figs. 1 and 2) connected to a user terminal 12 and estimator 10 (computer peripheral device) for price and consumable estimation.

Farrell et al ('129) and Farrell et al ('493) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the network estimation feature of Farrell et al ('493) to the standalone print system 2 of Farrell et al ('129) in order to obtain an estimation system of networked print systems for estimating printing material and cost. The motivation for doing so would be to improve the capability of estimation for networked machines. The prior art further discloses that the '129 patent is relevant to the '493 patent.

With respect to claim 2, discloses a method of claim 1, wherein the host computer (user interface 52, col. 6, lines 21-28) is linked to a generic printer driver located on the host computer (image generator processors 86, col. 6, lines 49-51).

With respect to claim 6, discloses a method of claim 1, further comprising determining printing parameters for choosing a print option that best fits budgetary and printing requirements of the print job (the method of Farrell estimates billing based on good materials usable to the customer and can exclude materials that are deemed useless to a customer for more efficient pricing, col. 8, lines 20-32).

With respect to claim 7, discloses a method of claim 6, wherein the printing parameters includes at least one of print quantity, print quality, print type and paper type (the method of Farrell estimates billing based on good materials usable to the customer and can exclude materials that are deemed "bad quality" to a customer for more efficient pricing, col. 8, lines 20-32).

With respect to claim 8, discloses a method of claim 6, wherein the printing parameters are ascertained by a remote printer driver (control section 7, col. 6, lines 1-4) and forwarded to a server (the unit cost of print jobs will be obtained from a database, col. 8, lines 52-56).

With respect to claim 9, discloses a method of claim 8, wherein the printing parameters are incorporated by the server (the unit cost of print jobs will be obtained from a database, col. 8, lines 52-56) in data files (lookup table, col. 8, lines 37-45) to be used by various combinations of instrumented drivers and printers located on the server

and shared by other printers connected to the server (image generator processors 86, col. 6, lines 49-51).

Claim 21 a means claim is rejected for the same reason as claim 1.

Claim 22 a means claim is rejected for the same reason as claim 2.

Claim 26 a means claim is rejected for the same reason as claim 6.

4. Claims 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitachi Koki Imaging Solutions, Inc. (HiKIS) (Office World News; Oct. 2000; vol. 28, issue 10; pgs 30-31) in view of Farrell et al (USPN 6,266,493 B1).

With respect to claim 10, HiKIS et al disclose a method for analyzing ink usage for a printer, comprising:

communicating a type of ink cartridge and ink reservoir system to a host computer as part of a print job submission (i-manage allows customers/users of a printing machine to check a printer's equipment including consumables such as an ink cartridge, para. 4);

HiKIS does not disclose estimating the ink to be used in a print job based on predefined printing requirements; and

determining the number of print swaths and pages the ink cartridge can complete based on ink available in the ink reservoir system.

Farrell et al ('493) teaches that the system can make a prediction/estimate of resources (*ink and pages are resources*) required to carry out a print request, col. 4, lines 7-13.

HiKIS and Farrell et al ('493) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the estimation feature of Farrell et al ('493) to the i-printer of HiKIS in order to obtain an estimation print system for estimating printing material and cost. The motivation for doing so would be to estimate quantities prior to executing print jobs.

With respect to claim 11, HiKIS discloses a method of claim 10, further comprising relaying the determined information to a user (the system can monitor usage of the print system and send out preventative maintenance regarding replacement of consumables such as toner cartridges indicating that the system can estimate ink usage, para. 6).

With respect to claim 12, HiKIS discloses a method of claim 11, further comprising providing the user with a plurality of options, including allowing the print job to proceed, choosing an alternative printing system (users can send print jobs to multiple printers, para. 8), and ordering ink consumables for the printer (para. 4).

With respect to claim 13, HiKIS discloses a method of claim 12, further comprising offering the user upgrade options, including ordering a generic stand alone printer driver and a server printer driver (users can connect to suppliers and web sites for supplies, sales, and customer support via an embedded web browser, para. 4).

With respect to claim 14, HiKIS discloses a method of claim 11, further comprising providing the user with a hyperlink via the Internet to a supplier of the printer

for automatic ordering of the ink consumables (users can connect to suppliers and web sites for supplies, sales, and customer support via an embedded web browser, para. 4).

With respect to claim 15, discloses an ink usage monitoring system for estimating ink usage of a print job, comprising:

a computer peripheral (i-copier/printer) device for performing the print job; and

a host computer (HiKIS discloses that the system is capable of remote access, para 2) connected to the computer peripheral device (capable of connection to other addressable printers to select printers or distribute print jobs, para. 8);

HiKIS does not disclose having predefined information relating to the peripheral device, wherein the host computer has pricing and estimation of ink and image consumables for completing the print job, before the print job is performed.

Farrell et al ('493) teaches that the system can make a prediction/estimate of resources (*ink and pages are resources*) required to carry out a print request, col. 4, lines 7-13 based on prior or predetermined information stored in a database 24, col. 4, lines 5-7.

HiKIS and Farrell et al ('493) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the estimation feature of Farrell et al ('493) to the i-printer of HiKIS in order to obtain an estimation print system for estimating printing material and cost. The motivation for doing so would be to estimate quantities prior to executing print jobs.

With respect to claim 16, discloses an ink usage monitoring system of claim 15, further comprising a remote printer driver (an i-copier/printer using IPP protocol) located on a server (internet server) that is connected to the host computer (users can send print jobs to multiple printers, para. 8).

With respect to claim 17, discloses an ink usage monitoring system of claim 16, wherein the server supplies information pertaining to a number of instrumented drivers and printers to the host computer (users can connect to suppliers and web sites for supplies, sales, and customer support via an embedded web browser, para. 4).

With respect to claim 18, discloses an ink usage monitoring system of claim 17, wherein the remote printer driver includes at least one of firmware and software that determines printing parameters for choosing a print option that best fits budgetary and printing requirements of the print job (users can choose to print a job to multiple printers to effectively multiply throughput, save time para. 8, and can save money by accessing remote capabilities of printers without incurring telephone charges, para. 9).

With respect to claim 19, discloses an ink usage monitoring system of claim 18, wherein the printing parameters includes at least one of print quantity (multiply throughput, para. 8), print quality, print type and paper type.

With respect to claim 20, discloses an ink usage monitoring system of claim 18, wherein the printing parameters are ascertained by the remote printer driver (an i-copier/printer using IPP protocol) and forwarded to the server that is connected to the host computer (users can choose to print a job to multiple printers to effectively multiply

throughput, save time para. 8, and can save money by accessing remote capabilities of printers without incurring telephone charges, para. 9).

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (USPN 5,383,129) in view of Lin et al (USPN 6,757,070 B1).

With respect to claim 3, Farrell does not disclose that the host computer is linked to a remote printer driver in a server system. Lin et al teach of a universal print driver, col. 4, lines 54-66 linked to a host computer (client computer 20, col. 4, line 56) in a server system (client/server printing system 12, col. 3, lines 31-34).

Farrell and Lin et al are analogous art because they are from the similar problem solving area of connecting remote drivers. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the universal print driver feature of Lin et al to the system of Farrell in order to obtain a print driver useable by a client. The motivation for doing so would be to access a print driver.

With respect to claim 4, Farrell does not disclose that the server supplies information pertaining to a number of instrumented drivers and printers to the host computer. Lin et al teach of a server sending data items 114 such as a printer driver to the web browser window 18 of client computer 20, col. 5, lines 1-9.

Farrell and Lin et al are analogous art because they are from the similar problem solving area of obtaining driver information. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the universal print driver feature of Lin et al to the system of Farrell in order to obtain print driver information

useable by a client. The motivation for doing so would be to access a suitable print driver.

With respect to claim 5, Farrell does not disclose that the remote server is linked to the host computer via at least one of the Internet or a local intranet. Lin et al teach of a server sending data items 114 such as a printer driver to the web browser window 18 of client computer 20, col. 5, lines 1-9.

Farrell and Lin et al are analogous art because they are from the similar problem solving area of obtaining driver information. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the universal print driver feature of Lin et al to the system of Farrell in order to obtain print driver information useable by a client. The motivation for doing so would be to access a suitable print driver.

Claim 23 a means claim is rejected for the same reason as claim 3.

Claim 24 a means claim is rejected for the same reason as claim 4.

Claim 25 a means claim is rejected for the same reason as claim 5.

With respect to claim 27, Farrell et al ('129) do not disclose selecting one of the plurality of different printers and sending the print job to the selected printer. Farrell et al ('493) teach that the system 1 prints a job on one of the printing systems 2, col. 4, lines 33-34).

Farrell et al ('129) and Farrell et al ('493) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art

to add the plurality of printer systems 2 of Farrell et al ('493) to the standalone print system 2 of Farrell et al ('129) in order to obtain an estimation system of networked print systems. The motivation for doing so would be to improve the estimation choices based on print job properties. The prior art further discloses that the '129 patent is relevant to the '493 patent.

With respect to claim 28, Farrell et al ('129) do not disclose the method of claim 1, wherein the peripheral device and at least some others of the plurality of different printers are located at different network nodes.

Farrell et al ('493) teach that the system 1 contains multiple printers at different nodes, col. 2, lines 26-32, Fig. 1).

Farrell et al ('129) and Farrell et al ('493) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the plurality of printer systems 2 of Farrell et al ('493) to the standalone print system 2 of Farrell et al ('129) in order to obtain an estimation system of networked print systems. The motivation for doing so would be to improve the estimation choices based on print job properties. The prior art further discloses that the '129 patent is relevant to the '493 patent.

6. Claims 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell et al (USPN 6,266,493 B1) in view of Farrell et al (USPN 5,383,129).

With respect to claim 33, Farrell et al does not disclose a method of claim 29, wherein the printer parameters include an identification number indicative of a particular

consumable item, the identification number queryable to determine if the particular consumable item is replaced.

HiKIS teaches that users can connect to suppliers and web sites for supplies, sales, and customer support via an embedded web browser, para. 4.

Farrell et al ('493) and HiKIS are analogous art because they are from the similar problem solving area of monitoring print consumables. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the i-printer of HiKIS to the estimation feature of Farrell et al ('493) in order to obtain an print system for monitoring printing material. The motivation for doing so would be to maintain adequate consumable levels for printing.

With respect to claim 38, Farrell et al ('493) does not disclose based on the print job parameters, estimating a cost of the consumables required to print the print job, and communicating the cost to the first computer.

Farrell et al ('129) teaches that cost of consumable materials for printing or rendering is input to the system to be used for estimation purposes, col. 8, lines 14-17).

Farrell et al ('493) and Farrell et al ('129) are analogous art because they are from the similar problem solving area of estimating printing material and cost. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add the standalone print system 2 of Farrell et al ('129) to the network estimation feature of Farrell et al ('493) in order to obtain an estimation system of networked print systems for estimating printing material and cost. The motivation for doing so would be

to improve the capability of cost estimation for networked machines. The prior art further discloses that the '129 patent is relevant to the '493 patent.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sevcik et al (USPN 6,330,542 B1) teaches of a print procurement system using consumable options entered by a user.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Lett whose telephone number is (571) 272-7464. The examiner can normally be reached on 7-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJL

MARK WALLERSON
PRIMARY EXAMINER